

COMMENTS FROM AN ICPS CORRESPONDENT: “NELIPU” OF VAN RHEEDE

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In his *Species Plantarum*, Linnaeus (1753) described seven species of *Utricularia*, but none of them were based on specimens collected from India. However, he quoted “Nelipu,” an Indian name, under *Utricularia caerulea*. Later it was proven that the *U. caerulea* described by Linnaeus was a mixture of three different entities. Papers published in the last few decades have discussed nomenclatural problems associated with this name. “Nelipu,” probably the first Asian *Utricularia* to be illustrated prior to Linnaeus, did not get a Latin name until Smith named it *U. reticulata* in 1805.

What is Nelipu? The name is Malayalam and refers to how the plant occurred abundantly in paddy fields (Nellu = paddy; Pu = flower). This name, recorded by van Rhee in the seventeenth century, does not seem to be in use any more. In Malayalam-speaking areas (Kerala state) it is known as “Kakapu” (Kaka = crow; pu = flower), probably due to its beak-like spur. In the Konkani-speaking areas (Goa state) it is known as “Kavlya Dole” (Kavlya = crow; dole = eye), although it is not clear how it got this name.

Van Rhee—Heinrich van Rhee tot Draakenstein—was Governor of the Dutch possessions in Malabar (now in Kerala state). He gathered information on the plants of this area and published an illustrated account under the name “Hortus Malabaricus.” This twelve volume work is, incidentally, the first work in which the Malayalam script appeared in print, and “Nelipu” appeared in the ninth volume in 1689.

Distribution, Ecology and Morphology

U. reticulata Smith is distributed in India and Sri Lanka (Janarthanam & Henry, 1992; Taylor 1989). In India, it is restricted to the West Coast and lower elevations of the Western Ghats from Saurashtra to Kanniyakumari, spanning a north-south range more than 1600 km long. Taylor (l.c.) also cited Madhya Pradesh, Bihar and Orissa, but I have not seen any specimens from these states in any of the Indian herbaria. Although it is abundantly present in paddy fields, it is also recorded from fallow fields, harvested paddy fields, puddles on rocky plateaus, etc. This plant comes up during July and is seen in peak flowering during September-November. Stray collections have also been made from wet areas in other seasons. In paddy fields it reaches almost 75 cm high, twining among paddy culms (see Front Cover). Violet flowers scattered amidst the emerald green of young paddy plants and the golden yellow of mature paddy plants are worth a sight (Figure 1). In open areas, its scapes twine around grasses, sedges, *Xyris* or *Eriocaulon* species. In the absence of any support they twine around each other to form a rope and support themselves (Figure 3). They are stunted and erect if they happen to grow in wind-prone areas such as the clear slopes of hillocks. In puddles, *Eriocaulon* species and *U. reticulata* form beautiful contrasting rings of violet and white. *U. reticulata* has a distribution sympatric with *U. cecilia*, *U. lazulina*, *U. malabarica*, *U. praeterita*, and others.

Immediately after germination the species forms a mat of linear leaves with abundant traps on the surface of the mud. After two to three weeks the racemes appear with several flowers. The flowers last for several days, and sometimes weeks. These flowers, which are the largest in the genus in India, may measure up to 25 mm long. They are



Figure 1: *U. reticulata* in a paddy.



Figure 2: Flowers with a big visitor!



Figure 3: *U. reticulata* flowers with twined peduncle.

usually violet but vary from blue to pink, with intermediate hues. The white, blue or pink patch with colour striations at the centre of the lower lip of the corolla gives a relief to the otherwise monotonous colour. Very rarely white flowers are also seen (Figure 4). *U. reticulata* is an annual, dying off after seed-set.

Related species

Among the Indian bladderworts, *U. polygaloides* is the most closely related, and it is also distributed in India and Sri Lanka. But in India it is distributed along the East Coast from West Bengal to Tamilnadu and the Central parts of India. *U. polygaloides* is an erect species with smaller flowers.

Pollinators

The pollination of this species is not understood well, but they are often visited by bees, including the larger bumble bees.

Cultivation

Interestingly, there are no known cases of cultivation of this beautiful *Utricularia* species in India. If at all a single species from India should be grown, the most suitable one would be *U. reticulata* for its large, beautiful and long-lasting flowers, its twining



Figure 4: A rare white-coloured flower.

habit, and the relative ease with which it can be grown. In natural conditions it receives abundant rainfall (often reaching 3000 mm within four months—from June to October). The rainfall is at its peak during the vegetative growth of *U. reticulata*. They grow in open areas or in paddy fields where there is no dearth of bright tropical sunlight. The maximum temperature varies from 25°C to 33°C and the minimum from 23°C to 27°C with relative humidity varying from 70 to 98% depending on

the local conditions but usually exceeding 80%. Although the author has not tried growing *U. reticulata* from seeds, it is found that the vegetative mat transplanted from natural conditions fares well under cultivation.

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